

SUPPORT FOR AMENDMENT

The changes in rewritten claims 1, 7-14, 21, 26, and 28 relative to the previous versions are shown in the Appendix entitled "Version with Markings to Show Changes Made" (attached herewith), wherein bracketing is used to identify deleted material and underlining is used to identify added material.

The amendments to claims 1, 7-14, 21, 26, and 28 are supported by the description in the specification and by original claims 1-29. No new matter has been added. Upon entry of this Response, claims 1-29 remain pending in the application.

REMARKS

The claimed invention relates to anti-diarrheal sweetening compositions, foodstuffs containing such sweetening compositions, and methods of making foodstuffs containing such sweetening compositions.

Claim Rejections – 35 U.S.C. § 103 (a)

The rejection of claims 1-29 under 35 U.S.C. § 103(a) as being unpatentable over James (United States Patent No. 5,721,004), Teeuwen et al. (abstract), Thon (abstract), and Birch et al. (abstract) in view of Laurenzo et al. (European Patent Application No. EP 0 787 745 A2) is respectfully traversed for at least the following two reasons.

First, none of the applied references, alone or in combination, teaches or suggests that inulin be present in an amount which comprises at least about 25 percent by weight of a combination of sweetening agent or agents and inulin—that is, in an amount sufficient to reduce diarrhea induced by sweetener consumption—as required by the claimed invention. Indeed, none of the applied references even acknowledges or recognizes that diarrhea induced by sweetener consumption can be reduced or eliminated through the use of inulin. This teaching is limited to Applicant's disclosure and, in accordance with MPEP 2143, cannot provide the basis for a motivation to modify or combine references.

James describes methods for producing fat-free and low-fat viscous dressings using inulin as a fat mimetic. Teeuwen et al. describes the use of inulin as a partial replacement for fat and sugar, and refers to the combination of inulin with an intense sweetener. Thon describes the use of inulin as a sugar substitute used in combination with a sweetener. Birch et al. describes the composition and properties of diabetic jams. Laurenzo et al. describes processes for clarifying crude inulin extracts. None of these references makes any reference whatsoever to alleviating symptoms of diarrhea induced by sweetener consumption. Moreover, none of these references contains any teaching or suggestion that a minimum amount of inulin used in combination with a sweetener is sufficient to reduce or eliminate diarrhea induced by consumption of the sweetener. Furthermore, none of these references contains any teaching or suggestion

that an efficacious minimum amount of inulin corresponds to at least about 25 percent by weight of a combination of sweetener and inulin.

Second, the claimed invention provides a solution to a long-felt but unsolved need in the art. The claimed invention recites sweetening agents comprising at least one polyol. As is well known in the art, polyol consumption often results in unpleasant side effects, which include diarrhea and symptoms associated with diarrhea (e.g., specification, p. 2, ll. 13-21). As evidenced by Exhibits A-C submitted with Applicant's Response filed July 24, 2001, manufacturers of foodstuffs containing polyols are well aware of the problems associated with polyol consumption. This awareness represents a long-felt but unsolved need in the art. In view of this long-felt but unsolved need, it may safely be concluded that if the claimed invention would have been obvious in view of the cited references, which Applicant respectfully submits that it would not have been, then manufacturers of polyol-containing foodstuffs would have long ago employed Applicant's invention in order to reduce the undesirable side effects of their products, thus boosting sales, increasing consumer satisfaction, etc.

The recognition in the art of a long-felt but unsolved need to address the problem that the consumption of polyols can produce undesirable gastrointestinal side effects is evidenced by the above-mentioned Exhibits A-C. As noted in the Response filed July 24, 2001, Exhibit A shows a candy wrapper warning that the presence of the polyol ingredients lactitol and maltitol may produce a laxative effect. Exhibit B shows a candy wrapper warning that the presence of the polyol ingredients sorbitol or mannitol, or the presence of hydrogenated starch hydrolysate, may produce a laxative effect. Exhibit C shows candy wrappers from two foodstuffs produced by the same manufacturer, one of which contains a warning against the possibility of a laxative effect, the other of which does not. The foodstuff bearing the warning contains the sucrose replacement maltitol, whereas the foodstuff without a warning contains ordinary sugar (i.e., sucrose).

This long-felt but unsolved need, evidenced by the above-mentioned warning labels, is successfully addressed by use of the claimed invention, in which inulin is added to sweetening compositions in the claimed amounts (e.g., specification, page 7, lines 3-7). The results achieved by the use of these claimed amounts (viz., the

reduction of extremely undesirable side effects) are surprising and unexpected and represent more than the mere optimization of ingredient amounts.

The fact that the claimed invention provides a solution to a long-felt but unsolved need, the existence of which is evidenced by the warning labels in the above-mentioned Exhibits, is a testament to the non-obviousness of the claimed invention. As required by MPEP 2141.01, "[o]bjective evidence or secondary considerations such as ... long-felt need ... are relevant to the issue of obviousness and must be considered in every case in which they are present."

Inasmuch as none of the applied references, alone or in combination, teaches or suggests the claim recitation that inulin be present in an amount which comprises at least about 25 percent by weight of a combination of sweetening agent or agents and inulin—that is, in an amount sufficient to reduce diarrhea induced by sweetener consumption—and inasmuch as the claimed invention provides a solution to a long-felt but unsolved need in the art, Applicant respectfully submits that the claimed invention is neither anticipated by nor would have been obvious in view of the applied references, alone or in combination. Accordingly, withdrawal of this ground of rejection is respectfully requested.

Conclusion

In view of the Amendments and Remarks set forth above, Applicant respectfully submits that the present invention is in condition for allowance. Early notification to such effect is earnestly solicited.

If for any reason the Examiner feels that the above Remarks do not put the claims in condition to be allowed, and that a discussion would be helpful, it is respectfully requested that the Examiner contact the undersigned agent directly at (312)-321-4257.

Respectfully submitted,

A handwritten signature in cursive script, reading "Gregory H. Zayia", written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Amendment to claim 1:

1. (Once Amended) A sweetening composition comprising:
at least one sweetening agent [selected from the group consisting of]
comprising a polyol[, monosaccharide, disaccharide, and combinations thereof];
and
inulin, which comprises at least about 25 percent by weight of the
combination of said at least one sweetening agent and said inulin.

Amendment to claim 7:

7. (Once Amended) The composition of claim 1, wherein said sweetening agent further comprises a monosaccharide [is] selected from the group consisting of glyceraldehyde, erythrose, threose, ribose, arabinose, xylose, lyxose, allose, altrose, glucose, mannose, gulose, idose, galactose, talose, dihydroxyacetone, erythrulose, ribulose, xylulose, psicose, fructose, sorbose, tagatose, and combinations thereof.

Amendment to claim 8:

8. (Once Amended) The composition of claim [1] 7, wherein said monosaccharide is selected from the group consisting of fructose, glucose, and a combination thereof.

Amendment to claim 9:

9. (Once Amended) The composition of claim [1] 7, wherein said monosaccharide comprises fructose.

Amendment to claim 10:

10. (Once Amended) The composition of claim 1, wherein said sweetening agent further comprises a disaccharide [is] selected from the group consisting of maltose, lactose, sucrose, isomaltulose, maltulose, isomaltose, cellobiose, and combinations thereof.

Amendment to claim 11:

11. (Once Amended) The composition of claim [1] 10, wherein said disaccharide comprises maltose.

Amendment to claim 12:

12. (Once Amended) The composition of claim [1] 10, wherein said disaccharide comprises lactose.

Amendment to claim 13:

13. (Once Amended) A sweetening composition comprising:
a sweetening agent comprising a polyol and fructose; and
inulin, which comprises at least about 25 percent by weight of the
combination of said [at least one] sweetening agent and said inulin.

Amendment to claim 14:

14. (Once Amended) The composition of claim 13, wherein said [sweetening agent further] polyol comprises xylitol.

Amendment to claim 21:

21. (Once Amended) A sweetening composition comprising:
a sweetening agent comprising xylitol, lactose, and fructose; and
inulin, which comprises at least about 25 percent by weight of the
combination of said sweetening agent and said inulin.

Amendment to claim 26:

26. (Once Amended) A method for preparing a foodstuff comprised of a plurality of ingredients, said method comprising:
(a) combining a first of said ingredients with at least one sweetening agent [selected from the group consisting of] comprising a polyol[, monosaccharide, disaccharide, and combinations thereof]; and

(b) combining a second of said ingredients with inulin in an amount which comprises at least about 25 percent by weight of the combination of said at least one sweetening agent and said inulin; wherein

said first and said second of said ingredients are either the same ingredient or else different ingredients.

Amendment to Claim 28:

28. (Once Amended) A method for preparing a foodstuff, said method comprising:

adding to said foodstuff:

(i) at least one sweetening agent [selected from the group consisting of] comprising a polyol[, monosaccharide, disaccharide, and combinations thereof]; and

(ii) inulin, which comprises at least about 25 percent by weight of the combination of said at least one sweetening agent and said inulin; wherein

said at least one sweetening agent and said inulin are added to said foodstuff either in combination at the same time, or else in separate portions at different times.